

Title:

Pulmonary functions in rheumatoid arthritis patients and normal individuals – a prospective Case – Control study.

Authors: Divya R, Nagashree M

Affiliations: PSG Institute of Medical sciences and Research, Coimbatore

Keywords: Pulmonary Function test (PFT), Rheumatoid Arthritis

Background:

Rheumatoid arthritis is a chronic systemic inflammatory disease that predominantly manifests affecting multiple joints of the body. Though articular involvement is the predominant manifestation of rheumatoid arthritis, Almost 40% of patients with rheumatoid arthritis, at the outset or during the course of their illness develop extra-articular diseases. Pulmonary involvement in vast number of rheumatoid arthritis patients goes clinically unrecognized and becomes apparent only when significant parenchymal changes have already happened.

Aim:

To assess the pulmonary functions of Rheumatoid arthritis patients and compare it with age and sex matched healthy individuals

The justification for this study is:

Though pulmonary dysfunction in Rheumatoid Arthritis is well documented in literature, yet there is lack of adequate population, more so from southern India. The present study will attempt to fill the paucity of data on Indian knowledge in Indian scenario.

Materials and methods:

Setting: Department of Physiology PSG IMS&R

Study design: Case – Control study

Time frame: April 2014 to April 2015

Method:

- Thirty adult patients aged more than 18 years, diagnosed as Rheumatoid arthritis based on ACR criteria were included in the study. They were subjected to Spirometry using cosmed Spiropalm – 6 MWT computerized spirometer after obtaining informed consent. Age and sex-matched normal adults were included as controls.

Ethical Committee of PSG IMS&R has approved the study

Results:

- The PFT parameters were significantly decreased in cases with Rheumatoid arthritis when compared with age and sex matched controls.
- PFT parameters of cases showed a significant negative correlation with increasing BMI values.
- Duration of illness, menstrual status has not shown significant correlation with decreasing lung function parameters.

Conclusion:

Rheumatoid arthritis is associated with significant pulmonary abnormalities and this deterioration is observed more in patients who had higher BMI.